



Nez Perce

ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT

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December 15, 2000

Steven Livingston
Project Manager
U.S. Department of Energy
P.O. Box 45079
Washington, D.C. 20026-5079

Re: Draft Long-Term Stewardship Study (LTS)

Dear Mr. Livingston:

Since 1855, reserved treaty rights of the Nez Perce Tribe in the mid-Columbia have been consistently recognized and affirmed by the federal courts. These actions protect Nez Perce treaty-reserved rights to utilize our usual and accustomed resources and resource areas in places such as the Hanford Reach of the Columbia River. Accordingly, the Nez Perce Tribe, Environmental Restoration and Waste Management Program (ERWM) respond to actions that impact the Hanford ecosystem. The protection of the cultural and natural resources at Hanford is of great concern to the Nez Perce Tribe, and it is in regard to these resources that we write this letter.

Tribes have been here since time immemorial. Stewardship began thousands of years ago for the Nez Perce. We were here when the Manhattan Engineer Works was created, removed and denied access to cultural resource sites along the Columbia River, and now we monitor the cleanup of the Hanford Reservation. The Nez Perce Tribe is not responsible for the nuclear waste activities, but now we share in the responsibility to restore the damage that was done to the landscape.

The development of the Long-Term Stewardship program is a monumental task, which impacts Tribes, States, local communities and future generations. Residual contamination will remain at Hanford and will preclude unrestricted future access to cultural resource sites and land use creating long-term stewardship responsibilities. This document is a good analysis of the activities that are required to determine the final environmental remedy decision or long-term stewardship solution.

The Nez Perce Tribe is committed to long-term stewardship but we must first minimize residual contamination, reducing future long-term stewardship costs. In the beginning we were naïve that science was fail-safe, now we must embrace all communities in an effective plan, develop policy, and implement the responsibilities of the long-term stewardship of the federal government.

27.1

27.1 – The Department appreciates this comment. Thank you.

Tribes

The DOE Affected Tribes have a responsibility to protect, preserve, and perpetuate cultural resources and resource sites on the Hanford Reach. The Nez Perce Tribe must present the technical and political considerations of the Department of Energy (DOE) technologies against the array of tribal legal, cultural, political, and natural resource considerations. We commend the DOE and LTS document supporting its federal trust responsibility and obligations to the affected Tribes.

27.2

27.2 – The Department appreciates this comment. Thank you.

Land Use

The transference of property, institutional control and stewardship responsibilities to non-federal ownership can lead to negligence of human and environmental protection. The International City/County Management Association states that nearly 75% of local governments are unable to implement or maintain institutional controls. As a result, the stewardship of unrestricted sites should be maintained and the responsibility of the Department of Energy.

27.3

27.3 – This comment is acknowledged in a text box in Section 6.2 of the Study. Section 6.2 of the Study recognizes the many issues, public concerns, and uncertainties associated with ensuring the continued provision of long-term stewardship after property transfers. The Department's Long-term Stewardship Working Group recently identified the issue of how DOE will ensure adequate protection of human health and the environment at sites transferred to the private sector as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This comment will be provided to the Executive Steering Committee for their consideration.

Funding

Funding is a critical issue of Long-Term Stewardship. Congressional funding may not guarantee program missions and goals. We recommend a combination of options two and three listed in Exhibit 8-3. Provide funding in multi-year contributions, through the sale or lease of the DOE's assets to a trust fund, escrow account or investment fund establishing a mechanism for the Stewardship Program. This method has successfully been employed at restored Department of Defense and Energy sites.

27.4

27.4 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

Records Management

It is important to retain and easily access all pertinent data on hazardous contaminants still present on site. Current policies dictate that records are destroyed after a specific period of time. This policy has resulted in considerable problems tracking and identifying contaminants present on site. All pertinent records should be retained as long as they may pose a risk to human and ecological health. It is imperative that the records be easily accessible to the all involved stakeholders.

27.5

27.5 – The Department acknowledges this comment in Section 7.2 of the Study. The Department has begun a process to more clearly identify and develop a consensus on long-term stewardship information needs and develop guidance for long-term stewardship information and records management. Some information management guidance will be included in the guidance for site-specific long-term stewardship plans currently under development by the Department. This comment will be considered in these efforts.

Human and Ecological Risk

Section 9.1 Footnote 103 should discuss the Hanford Biological Resources Management Action Plan (BRMaP), which is used at Hanford. This plan is specific to the management of natural resources and even though it is in the draft stage and has been used by the Hanford site contractors since 1996.

27.6

27.6 – The Hanford Biological Resources Management Action Plan is now mentioned in the corresponding footnote.

Cleanup decisions must also include biological monitoring at remediated sites to ensure contaminants are not being incorporated into the food chain. Sampling of biota needs to be conducted before and after cleanup to determine if contaminants still exist at a given

27.7

27.7 – As the EM mission at a site is completed, current plans call for the EM program and the site landlord (if different from EM) to develop a long-term stewardship baseline for each site. The baseline will describe the scope of applicable long-term stewardship requirements, the technical activities and the projected schedule to meet these requirements, and expected costs.

site. This type of sampling is specific to each waste site but needs to be incorporated at all sites to ensure that natural resources are being protected.

Long-Term stewardship should also recognize the importance of developing and incorporating mitigation and restoration plans into waste site remediation efforts. In any cases, clean-up budgets do not include the expense of restoration and/or mitigation efforts.

We thank you for this opportunity to be involved in this document review, and look forward to continuing involvement and development of Long-Term Stewardship policy and implementation plan. We believe that the natural and cultural resources at Hanford can better be preserved, protected and perpetuated by committing to a positive responsible stewardship action. If you have any questions regarding this issue, please contact Kristie Baptiste-Eke at 208-843-7375 or email: kristieb@nezperce.org.

Sincerely,



Patricia Schmitt, Director

CC: Keith Klein, DOE-RL Manager
Kevin Clarke, DOE-RL
Dee W. Lloyd, DOE-RL
Russell Jim, YIN
Bill Burke, CTUIR
Greg Hughes, USFWS
State and Tribal Government Working Group

27.8

27.8 – The point is noted and is consistent with Departmental procedures.



STGWG

State and Tribal Government Working Group

December 15, 2000

Member Tribes
Confederated Tribes
of the Umatilla
Indian Reservation
Isleta Pueblo
Navajo Nation
New River Tribe
Pueblo de San Ildefonso
Santa Clara Pueblo
Seneca Nation of
Indians
Shoshone-Bannock
Tribe
Yakama Indian Nation

Member States
California
Colorado
Georgia
Idaho
Illinois
Kentucky
Missouri
Nevada
New Mexico
New York
Ohio
Oregon
South Carolina
Tennessee
Texas
Washington

Member Organizations
National Association of
Attorneys General
National Conference of
State Legislatures
National Governors'
Association

Secretary Councilors
Dissemination and
Documentation
Integration and
Disposition
Stewardship
Transportation
Tribal Issues

Steven Livingstone, Special Assistant for
Long-Term Stewardship
Office of Environmental Management
U. S. Department of Energy (EM-51)
1000 Independence Ave., SW
Washington, DC 20585

Comments on the Draft Long-Term Stewardship Study, October 2000

Dear Mr. Livingstone:

The State and Tribal Government Working Group (STGWG) appreciates the opportunity to comment on the Draft Long-Term Stewardship Study dated October 2000. STGWG congratulates the DOE on the quality and responsiveness of this document. The document is well structured, well written and very readable. The efforts that have obviously gone into responding to the scoping comments are apparent and are appreciated. The report sets a standard that subsequent DOE reports should strive to emulate.

The report emphasizes in several places the public processes for addressing long-term stewardship issues, and STGWG concurs with the importance of this concept. **Indeed, the report should go farther in specifying the advantage to DOE in involvement beyond strict regulatory requirements.** According to the DOE Openness Advisory Panel (draft report, 11/12/00), DOE's success in fulfilling their mission is dependent upon their relations with the local community, and "each site must tailor its approach to reconcile the nature of its mission with the makeup and interests of its own community." Particularly in the long-term stewardship arena, where success is defined in community terms, not DOE's, the need to meaningfully involve local and regional stakeholders is paramount. While laws and regulations specify limited community involvement in remedy decisions, the DOE needs to go beyond these minimal requirements to achieve active support for their decisions with long-term implications, or recognize that the lack of this support undermines the effectiveness of the remedy. **Of particular importance is the need for inclusivity regarding tribal nations and local governments. In these communications, DOE needs to acknowledge the special government-to-government nature of interactions with sovereign Tribes.**

28.1

28.1 -- The Department thanks STGWG for this comment.

28.2

28.2 -- The public comment process for developing the Study has identified an important issue facing LTS. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, do not clearly articulate the role of public involvement in the activities and decisions that follow the selection of a remedy (ROD). At the same time, the Department recognizes that the ultimate success of LTS depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage LTS activities. The Study identifies this as an additional key challenge associated with LTS. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management LTS Steering Committee.

28.3

28.3 -- The Final Study notes the special government-to-government relationship between the federal government and sovereign Tribes in a footnote in section 4.1 and in several places in Chapter 9. The Final Study also notes the importance of ensuring that DOE's obligations under the Federal Indian Trust Responsibility are met during LTS in section 4.1, as a key bullet in section 6.2, and in several places in Chapter 9.



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through a cooperative agreement with the U.S. Department of Energy, Denise Griffin, NCSL Staff
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While the report discusses the need for enforceability of the requirements of long-term stewardship, no solutions are offered. **STGWC remains skeptical of the effectiveness of self-regulation and asks that DOE investigate what is required to establish external regulation of stewardship requirements.** ROD modifications and five-year reviews under CERCLA are performed by the DOE and do not require state (or community) acceptance. The need for openness and involvement described above must go hand-in-hand with external enforceability in order to create an acceptable and effective long-term stewardship program.

28.4

28.4 -- The Department recognizes the importance of adequate mechanisms for oversight and enforcement of LTS requirements, particularly following a change in property ownership or the organization responsible for LTS. Sites will need to understand the regulatory and legal mechanisms available for oversight and enforcement and ensure that appropriate mechanisms are in place. The process of determining appropriate oversight and enforcement mechanisms should include: (1) Determining the regulatory requirements for LTS at each site; (2) Establishing LTS requirements into enforceable agreements with environmental regulators and local governments; (3) Replicating records at multiple locations (federal, state, local); and (4) Developing appropriate performance metrics.

The report discusses the need for determining likely future site use in order to define remedy objectives. This is a logical approach to remedy development, but the approach must also incorporate the ability of a remedy to achieve unrestricted use through the treatment or removal of contamination.

Unrestricted use is the goal of cleanup. Wherever unrestricted use is not

28.5

28.5 -- The Study includes a new text box in Chapter 2 that provides a more formal statement on the scope of LTS and why LTS is required (i.e., the inability to achieve unrestricted use and the nature of residual hazards).

The report presents a relatively comprehensive discussion of cost and funding

evaluation before the implementability of long-term stewardship can be determined: estimation of long-term costs and assurance of funding. Current cost estimating techniques fail to provide a basis for the comparison of near-term costs with long-term costs. Even the NDAA Report to Congress truncated costs at 70 years in the future, clearly demonstrating the need for new methodology to properly account for costs lasting hundreds of years or more. **The report needs to stress this research need, and concur that remedy comparisons in the absence of this information is incomplete.**

28.6

28.6 -- The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

Neither the DOE nor any other federal agency can commit to future funding for long-term stewardship. Thus, assurances that long-term requirements will be funded are without substance and cast doubt on the permanence of any remedy with critical long-term attributes. **The report should address this uncertainty and specify reevaluation of selected remedies and continued funding on an ongoing basis, not just on the CERCLA five-year interval.** This issue ties to the external enforceability of long-term requirements discussed above.

28.7

28.7 -- See response to Comment 28.6.

S. Livingstone
Dec. 15, 2000
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While the report does address the roles of other parties in long-term stewardship, it does not directly address what role, if any, the DOE should have. For sites (or portions of sites) with no continuing DOE mission, it is unlikely that DOE will manage the property over the long term. Even where residual contamination or land disposal exists, there is no compelling reason for DOE to continue management, if other agencies are better suited to these tasks. Most federal agencies have ownership of contaminated sites requiring long-term management, and it is likely that a central long-term stewardship agency could do a better job of managing these sites and obtaining funding to ensure that long-term requirements are met. Such a centralized agency could possibly be more effective in managing information for these sites, as well as directing research into technologies that would improve the implemented remedies. The report needs to raise this question of the DOE's role in long-term stewardship in order to allow airing of the issue and to promote conscious decision making for continued DOE management.

28.8

28.8 -- The Department received many comments that reflected varied opinions on the appropriate organizational structure for LTS. Opinions differ on the appropriate balance between federal vs. non-federal leadership, and between a strong central organization vs. independent field organizations. A balance that may work well for one site may not work well for other sites. DOE needs to consider these different opinions as it works on identifying roles and responsibilities for LTS. The Department's Long-term Stewardship Working Group recently identified the issue of how LTS should be managed within DOE and across the federal governments as one of the most important issues that should be addressed by the senior management LTS Steering Committee.

We believe that this report has significant value both within DOE and externally. Should you have any questions regarding these comments, please contact me at 303 692-3423.

We encourage you to finalize this document in a timely manner to avoid the interruptions that can delay projects during the transition of an administration.

Sincerely,

Steve Tarlton/dg

Steve Tarlton, Chair
STGWG Stewardship Committee
State of Colorado

cc: Armand Minthorn, STGWG Co-Convenor
Tom Winston, STGWG Co-Convenor
STGWG Stewardship Committee
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Catherine Volk, DOE
Ann Beauchesne, NGA

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
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Colorado Department
of Public Health
and Environment

December 15, 2000

Mr. Steven Livingstone, Project Manager
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Comments on the Draft Long-Term Stewardship Study, October 2000

Dear Mr. Livingstone:

The Colorado Department of Public Health and Environment is pleased to provide comments on the Draft Long-Term Stewardship Study. The document is extremely well-written and far above the average DOE report in readability and effective communication or information. The demonstration of responsiveness to scoping comments is exemplary, and should serve as a model for other DOE reports. The associated efforts at informing the interested stakeholders in stewardship issues are also excellent and need to be maintained, particularly the Long-Term Stewardship Web Site.

Although the document's intent was not to develop policy or provide recommendations, it does summarize many of DOE's current and anticipated attempts at implementing long-term stewardship. One of the attributes that permeates the DOE system is the overriding failure of self-regulation; and therefore, the stewardship "policy" and "guidance" activities undertaken by DOE are not expected to be sustained without further external impetus. It is hoped that the background provided in this report helps to cutrunch both stakeholder and Congressional support for more enduring and permanent implementation of long-term stewardship. Congressional support is necessary to meet stewardship funding commitments, to possibly change federal laws in support of long-term stewardship and in determining what organization(s) should have responsibilities for long-term stewardship at federal facilities.

29.1

29.1 – The Department appreciates this comment. Thank you.

29.2

29.2 – The Department acknowledges this comment in a text box in Section 4.1 of the Study. The Department recognizes the importance of adequate mechanisms for oversight and enforcement of long-term stewardship requirements, particularly following a change in property ownership or the organization responsible for stewardship. The various requirements and approaches to oversight, enforcement, and public information updates for long-term stewardship will be addressed by the senior management Long-term Stewardship Executive Steering Committee during the Department's strategic planning process. This comment will be provided to the Executive Steering Committee for their consideration.

Specific comments

1. p. iii, last two bullets: The PHS and site-specific stewardship plans are appropriate and necessary, but how will DOE Headquarters enforce these requirements on the sites? Recent experiences with the NDAA Submittal have demonstrated the difficulties in causing the sites to address such issues in the manner Headquarters feels is appropriate.	29.3	29.3 – See response to Comment 29.2.
2. p. 11, 1 st par: The last sentence notes that stewardship requirements are dependent on cleanup strategy, end state and future use. Certainly these are factors, but post-closure restrictions will necessarily apply to any site where contamination remains above an unrestricted use level. The overwhelming driver for leaving contamination at most DOE sites is cost rather than technical feasibility or community values. Thus, stewardship requirements are largely dependent upon the near-term availability of cleanup funds.	29.4	29.4 – The decision to clean up to unrestricted use, or to meet other specific land use requirements, is made on a site-specific basis with input from regulators, stakeholders, and the public. It is both DOE and EPA policy that cleanup remedies should be consistent with the intended future use of the affected areas. Chapter 2 of the Study includes a new text box that provides a more formal statement on the scope of long-term stewardship and why it is required (i.e., the inability to achieve unrestricted use and the nature of residual hazards). The goal of long-term stewardship is to ensure continued protection of human health and the environment consistent with applicable requirements. The Department recognizes the many issues and public concerns associated with the uncertainties with planning for, documenting, and funding long-term stewardship throughout the Study and acknowledges this comment by including it in a text box in Section 3.2 of the Study.
3. Section 3.1: While the section discusses the remedy objectives, no mention is made of the DOE and NRC requirements for cleanup to “as low as reasonably achievable” or ALARA. These requirements mandate cleanup of contamination to below remedy objectives if technically and financially feasible and would eliminate long-term activities. This conservatism is based on the uncertainties in estimating unrestricted use contamination levels.	29.5	29.5 – The focus of this Study is to discuss the challenges the Department will need to address for sites with long-term stewardship responsibilities.
4. Section 3.2, 1 st par: Concerns about being able to specify stewardship requirements at the ROD stage result from a failure to explicitly define the problem being remedied and the remedy objectives. A well-defined objective will allow definition of long-term requirements, even if the specifics of implementation are unresolved.	29.6	29.6 – The Department agrees that site-specific long-term stewardship planning and decision documents should clearly identify problems, remedial objectives, and long-term stewardship implications to the extent feasible. Section 3.2 of the Study has been revised to emphasize this point. The Department acknowledges this comment in a text box in Section 3.2 of the Study. Chapter 4 of the Study discusses DOE's current policy requiring sites to conduct long-term stewardship planning.
5. p 17, 1 st par: Defining the long-term requirements at the ROD stage or in remedy selection is necessary because the administrative framework for implementing the remedy can change after the ROD. For example, EPA guidance specifies that CERCLA RODs can be modified without state approval. In the case of DOE sites, DOE is the lead regulator under CERCLA and can modify the ROD with EPA approval. The requirements specify much less stakeholder involvement in post-ROD activities; therefore, long-term stewardship issues must be addressed forthrightly in the ROD. The process can defeat the State and stakeholder interests in the ROD unless they are championed by DOE or EPA. To date across the Complex, it appears that state and stakeholder interest in long-term stewardship issues has far outweighed DOE's, and EPA involvement has been minimal. It is critical that states, tribes and communities have the ability to address stewardship issues at all selection, modification and implementation stages.	29.7	29.7 – See response to Comment 29.6.

6. p. 17, insert: The guidance "recommends" development of a remedy monitoring plan. As is the case with most self regulated activities of the DOE, if external pressure is not exerted, guidance is often ignored or slighted.	29.8
7. p. 17, last par: The high level goal for long-term stewardship is the remedy objective established in the remedy selection process. Other community goals, such as economic development, historic preservation or natural resource management may be worthy, but go beyond regulatory-based protection of human health and the environment from the residual contamination.	29.9
8. p. 18, last bullet: This paragraph promotes the evaluation of the full life-cycle cost of each alternative; however, the NDAA submittal requirements developed by DOE HQ do not account for the full life cycle costs of remedies, allowing truncation in the year 2070. This limitation on the ability to grasp full life cycle costs demonstrates the need for research into costing and cost comparison methodology that accounts for such long-term expenditures.	29.10
9. Exhibit 3-3: This presentation is extremely valuable and would be enhanced by the addition of the NRC requirements. In many ways, the NRC regulations are more explicit about how to implement long-term aspects of remedies.	29.11
10. p.27, last par: It remains difficult to discuss the future enforceability of applicable requirements at DOE and federally owned sites. The persistent failure of self-regulation by DOE and its predecessors, and the uncertainties surrounding future regulatory structure raise unanswerable questions and further undermine the credibility of long-term controls. Furthermore, the enforcement of current regulations and requirements is difficult enough to cast doubt on the ease of future enforcement.	29.12
11. p. 34, Section 4.2.3: Other sections do note that state and local land use regulations are not applicable at federally owned sites, and reiterating this fact in the discussion of the roles of external parties would be appropriate.	29.13
12. p. 44, second bullet: Human intrusion is another potential mechanism for cover failure.	29.14
13. p. 45: Long-term stewardship begins once each remedy is implemented, not when a bureaucratic system changes the project title from "closure". This is a project-specific definition, not a sitewide one. Ignoring this distinction has misdirected funds from closure, and obscured our ability to develop real estimates of stewardship costs from currently ongoing stewardship activities at sites like Rocky Flats.	29.15

29.8 – See response to Comment 29.2.

29.9 – The Department agrees with the comment to select only remedies that meet the goal of protectiveness of human health and the environment as required by environmental laws. However, the Development also recognizes LTS must consider many other factors as well.

29.10 – The Department issued the National Defense Authorization Act (NDAA) Report, entitled A Report to Congress on Long-term Stewardship, in January 2001 (DOE/EM-0563). The Report to Congress and the Study were prepared as separate documents because the required scope for each was different. The primary focus of the Report to Congress was site-specific requirements; the primary focus of the Study was common national issues. Nonetheless, the two reports are complementary to one another, and the public is encouraged to read both documents. The Report to Congress can be useful for certain common long-term stewardship analyses, such as evaluating long-term stewardship needs. Similarly, the Department has added a text box to Chapter 2 of the Study providing an overview of the overall scope of DOE's long-term stewardship responsibilities. The cost estimates from the Report to Congress have been incorporated into Section 8.1 of the Study. They were not in the Draft Study because the cost information in the Report to Congress was not final prior to publication of the Draft Study. The Department anticipates that life-cycle cost estimates will improve over time as DOE moves forward with planning and implementing long-term stewardship. For the Report to Congress, each site was strongly encouraged to work with local stakeholders during the preparation of site-specific cost estimates. The Study is not the appropriate document to respond to specific comments on the Report to Congress or on the public comment process used to develop the Report. The Department encourages members of the public to comment on their respective site's cost estimate through established public involvement mechanisms at each site.

29.11 – The Department evaluated the specific suggestion made in this comment but chose not to revise the Study in response.

29.12 – See response to Comment 29.2.

29.13 – This distinction has been addressed in the text.

29.14 – This point has been included in the text.

29.15 – The Department acknowledges this comment in a text box in Section 2.1 of the Study. In the Paths to Closure documents, the Department defined completion of cleanup projects explicitly as the situation in which "deactivation or decommissioning of all facilities currently in the EM program has been completed, excluding any long-term surveillance and monitoring; all releases to the environment have been cleaned up in accordance with agreed-upon cleanup standards; groundwater contamination has been contained, or long-term treatment or monitoring is in place; nuclear material and spent fuel have been stabilized and/or placed in safe long-term storage; and "legacy" waste (i.e., waste produced by past nuclear weapons production activities and related research and development, with the exception of high-level waste) has been disposed of in an approved manner." Therefore, long-term stewardship responsibilities clearly begin when cleanup ends. The start of long-term stewardship is relatively easy to define at a relatively small site with a single cleanup project, but it is more difficult to define at large, complex sites with multiple cleanup projects that may span decades. Exhibit 5-3 of the Study also addresses this issue. The Department agrees that the distinction between completion of cleanup and start of LTS is not always clear in the site Project Baseline Summaries (PBS) and similar systems, especially at large sites with multiple areas undergoing remediation. The Department agrees with the comment that LTS planning begins before the start of cleanup; this is discussed explicitly in Section 6.1.3 of the Study. The Department's Long-term Stewardship Working Group recently identified the issue of developing a consistent, consensus definition of long-term stewardship, including when long-term stewardship begins, as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee.

14. Section 5.3: Continued federal ownership of DOE sites does not assure the continued funding of those sites at the DOE-budgeted level. Accurate estimates of stewardship costs should transcend agency "ownership". 29.16
15. p. 46, insert: Remedy selection often becomes a trade-off between the short-term availability of cleanup funds and long-term costs. Broad participation in this process is appropriate; however, the process needs to also evaluate who benefits and who pays for different remedy alternatives. Much of the DOE inclusion of local and state governments and tribal nations in the implementation of long-term stewardship appears to imply the sharing of the costs of these long-term activities, directly or indirectly. If the trade-off benefits the DOE by avoiding short-term DOE costs at the expense of costs to external parties, the DOE should pay these external costs. The remedy evaluation process should include all the costs and benefits and to whom they accrue. 29.17
16. p. 49, 2nd par: In the example, public access to the controlled site was as easy or easier than the controlling agency's access. The lesson from this example is that to be effective, the controlling entity must have a presence at the site at least equal to the public's. Thus, DOE needs to include "presence" in their evaluation of the implementability of institutional controls. 29.18
17. p. 57, 2nd note: DOE Order 435.1 may not specify stewardship, but it also does not specify when a radiologically contaminated material is not a radioactive waste. If the facilities were NRC regulated, sites with residual radioactive contamination would be required to be licensed to insure proper management. DOE must define the management of residual radioactive waste (radiologically contaminated material) and the long-term stewardship plan is the appropriate place to do this. 29.19
18. p. 61, last par: Nuclear weapons sites may also be transferred within the DOE to non-weapons mission activities. At Rocky Flats, a portion of the site was transferred from the Rocky Flats Field Office to the National Renewable Energy Laboratory. This transfer was conducted without removal of that portion of the site from the NPL listing, and without the approval of the State or EPA. 29.20
19. p. 67 2nd bullet: The last sentence should say, "implemented by DOE or the regulator..." 29.21
20. p. 69, Chapter 7: Of equal importance to the definition of areas with residual contamination is the definition of areas proven to be clean. Future uses in areas suitable for unrestricted use may require documentation, or re-surveying may be necessary. 29.22
21. p. 76, 1st bullet: Many sites may be able to incorporate libraries or information archives into site-based museums or visitor centers. Likewise the museum or 29.23

29.16 – This comment is acknowledged in a text box in Section 6.2 of the Study. Section 6.2 of the Study recognizes the many issues, public concerns, and uncertainties associated with ensuring the continued provision of long-term stewardship after property transfers. The Department's Long-term Stewardship Working Group recently identified the issue of how DOE will ensure adequate protection of human health and the environment at sites transferred to the private sector as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This comment will be provided to the Executive Steering Committee for their consideration. The Department agrees that accurate cost estimates should be independent of property ownership.

29.17 – Long-term stewardship planning (see Chapter 4 of the Study) and remedy selection decisions are done on a site-specific basis with input from regulators, stakeholders, and the public. As noted in Exhibit 3-1 of the Study, the criteria used to evaluate remedial alternatives include long-term effectiveness and cost-effectiveness. The long-term effectiveness of institutional controls is one of the criteria for evaluating long-term stewardship requirements during remedy selection that have been suggested in guidance developed by DOE, EPA, and the Department of Defense (DoD) and in recommendations forwarded to the Department (see Exhibits 3-2 and 3-3 in the Study). The Department also has identified the need to promote new science and technology development to help address the uncertainties associated with maintenance of institutional and engineered controls. The Department acknowledges the public concerns about long-term effectiveness in a text box in Section 3.2 of the Study. The issue of uniform or national standards for cleanup is beyond the scope of this Study because this document focuses on long-term stewardship.

29.18 – The Department acknowledges this comment in Section 5.3 of the Study. The Department agrees that an active presence at a given site will make it easier to enforce institutional controls, but does not agree that it is required in all cases to perform LTS effectively.

29.19 – As noted in Section 4.2.2 of the Study, Site-specific long-term stewardship plans are required by law for uranium mill tailings sites and must be approved by the Nuclear Regulatory Commission. The Department also requests the development of a site-specific long-term stewardship plan before accepting long-term stewardship responsibilities for any site. As the EM mission at a site is completed, current plans call for the EM program and the site landlord (if different from EM) to develop a long-term stewardship baseline for each site. The baseline will describe the scope of applicable long-term stewardship requirements, the technical activities and the projected schedule to meet these requirements, and expected costs.

29.20 – The Department evaluated the specific suggestion made in this comment but chose not to revise the Study in response.

29.21 – The first bullet in this section now includes this idea.

29.22 – The Department acknowledges this comment in Section 7.2 of the Study. The Department has begun a process to more clearly identify and develop a consensus on long-term stewardship information needs and develop guidance for long-term stewardship information and records management. Some information management guidance will be included in the guidance for site-specific long-term stewardship plans currently under development by the Department. This comment will be considered in these efforts.

29.23 – This comment is acknowledged in a text box in Section 7.2 of the Study. The Department agrees that museums may be a way to meet legal requirements to maintain an information repository and to provide knowledge about sites to communities during long-term stewardship. Museums already exist at certain DOE sites (e.g., Sandia National Laboratory, Los Alamos National Laboratory, Oak Ridge National Laboratory, and the Hanford Site), although information management is not currently part of their mission. The advantages and disadvantages of establishing a museum need to be assessed on a site-specific basis, since museums are not appropriate for all sites. The establishment of an information repository is a separate mission but could be incorporated with the development of a museum, visitor's center, or library. The Department agrees with the specific comment that a discussion of museums is not "out of scope" and has included such a discussion in Section 7.2 of the Study. Any decision to establish a museum at a specific site would need to consider issues such as mission, location, and funding sources, but the Department has not developed a policy on this. This comment will be provided to the senior management Long-term Stewardship Executive Steering Committee for their consideration.

visitor center can help perpetuate the community "institutional memory" regarding a facility and its residual hazards.	29.23	29.24 – The Department acknowledges this comment in a text box in Section 8.1 of the Study. The Department agrees that more information is needed on the scope of future long-term stewardship activities and better life-cycle cost estimates are needed. The Study incorporates the cost estimates from the Report to Congress on Long-term Stewardship and discusses the basis for these estimates. Accurate cost estimates are critical for long-term stewardship, particularly for ensuring accountability for the technical scope of the program. The Report to Congress on Long-term Stewardship is only the first step in developing the necessary cost figures. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites. This comment will be forwarded to the Executive Steering Committee for their consideration.
22. p. 81, Section 8.1: This section discusses the evaluation of the full life cycle cost of alternatives; however, the NDAA submittal requirements developed by DOE HQ do not account for the full life cycle costs of remedies, allowing truncation in the year 2070. This limitation on the ability to grasp full life cycle costs demonstrates the need for research into costing and cost comparison methodologies that account for such long-term expenditures.	29.24	
23. p. 83, 2 nd bullet: Most sites currently are implementing stewardship activities for specific projects, but are not accounting for those costs separately from closure or operating funds. By separating these costs, a track record of actual long-term costs could be developed to inform and improve estimates of future long-term costs. For example, Rocky Flats has implemented three groundwater remedies that will be operating for between thirty and one hundred years, but costs for these activities are spread among various accounts and are not separately tracked. The NDAA stewardship cost estimates include lumped costs for operating these systems based on a textbook cost estimating approach and ignores the currently unavailable actual costs.	29.25	29.25 – See response to Comment 29.24.
24. p. 85, item 1: The Congressional appropriation process balances budget versus need, and is unreliable. Current environmental compliance by DOE and other federal agencies is driven by the budget process rather than by the law or regulation, and the availability of funding for long-term stewardship will be subject to the same forces.	29.26	29.26 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.
25. p. 94, Exhibit 9-1: The stewardship activities will be driven not by the "desired end state", but by whether the site has been remediated to an unrestricted use level.	29.27	29.27 – The Department agrees with this point of clarification where stewardship activities are required for sites with land use restrictions to prevent potential exposures to hazardous substances. However, even sites cleaned up to unrestricted use will require record keeping on past site uses.
26. p. 95, Section 9.1: In addition to enhancing natural resources, actions by DOE, etc. have degraded or destroyed natural resources.	29.28	
27. p. 100, 2 nd bullet: The strategy presented would suggest that the NDAA estimates of stewardship costs, which only extend through 2070, would include estimates for remedy reevaluation and rework in the 2030 to 2050 timeframe. It can be assumed that estimates lacking these components are likely insufficient.	29.29	29.28 – This comment is acknowledged in a text box in Section 9.1 of the Study. The definition of "affected parties" in Chapter 1 of the Study was broadened to include regional concerns. Section 4.1 and Chapter 9 of the Study acknowledge the special government-to-government relationship between the federal government and Tribal governments. Chapter 9 of the Study also acknowledges the importance of ensuring that the federal Indian Trust Responsibilities and federal treaty obligations are met. 29.29 – See response to Comment 29.10.
28. p. 111, Section 10.2.2: The importance of complex-wide evaluation of science and technology needs and research highlights the need for a mechanism and an estimate for stewardship-related activities that are not site specific but are national in nature. The NDAA estimate should include such programmatic costs throughout the period of implementation.	29.30	29.30 – See response to Comment 29.10.

Mr. Steven Livingstone, Project Manager

December 15, 2000

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CDPHE has submitted these comments with the intention of strengthening this valuable report. We have contributed to and support comments made separately by the State and Tribal Governmental Working Group and the National Governors Association Federal Facilities Task Force. We encourage the DOE to hasten the finalization of the report to avoid delays inherent in a transition of administration.

Please contact me at 303-692-3423 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Tarlton".

Steve Tarlton, Unit Leader
Rocky Flats Oversight Unit

Cc: Howard Roitman, CDPHE
Dan Miller, Colorado AGO
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